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(54) PISTON RING MATERIAL

(57)Abstract:

PURPOSE: To improve wear and fatigue characteristics in a sulfuric-acid atmosphere by specifying respective contents of C, Si, Mn, Cr, Mo, W, Ni, Co, P, S, O, and Fe.

CONSTITUTION: This piston ring material has a composition consisting of, by weight, 0.6-1.1% C, $\leq 2\%$ Si, $\leq 2\%$ Mn, 10-18% Cr, 0.5-4% Mo+1/2W, $\leq 2.5\%$ Ni and/or $\leq 12\%$ Co (where the total content of Ni and Co is regulated to $\leq 0.5\%$), $\leq 0.015\%$ P, $\leq 0.005\%$ S, $\leq 30\text{ppm}$ O, and the balance Fe. The above piston ring material has superior wear resistance and fatigue strength in a sulfuric-acid atmosphere.

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